CLAIMS:

1. An electrically conductive resinous composition composed mainly of an electrically conductive carbon powder and a binding agent, wherein

said binding agent is a mixture of a thermoplastic resin and a carbodiimide compound.

2. An electrically conductive resinous composition as defined in Claim 1, wherein the mixture consists of 100 parts by mass of the thermoplastic resin and 0.001-50 parts by mass of the carbodiimide.

3. An electrically conductive resinous composition as defined in Claim 1 or 2, wherein the electrically conductive carbon powder is one which has a mean particle diameter of 10 to 500 μm, and the amount of the electrically conductive carbon powder is 100-1000 parts by mass for 100 parts by mass of the thermoplastic resin.

4. A fuel cell separator which is molded from the electrically conductive resinous composition defined in any of Claims 1 to 3, wherein the fuel cell separator has on one side or both sides thereof grooves through which an oxidizing gas or fuel gas is supplied, the fuel cell separator also has a specific resistance not higher than 200 mΩ · cm.

5. A process for producing a fuel cell separator from an electrically conductive resinous composition composed mainly of an electrically conductive carbon powder and a binding agent (which is a mixture of a thermoplastic resin and a carbodiimide compound), said fuel cell separator having on one side or both sides thereof grooves through which an oxidizing gas or fuel gas is supplied, said process comprising the step of:

injection-molding a mixture of 100 parts by mass of the thermoplastic resin, 0.001-50 parts by mass of the carbodiimide compound, and 100-1000 parts by mass of the electrically conductive carbon powder.

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6. A polymer electrolyte fuel cell consisting of a plurality of unit cells connected together, each unit cell consisting of a pair of electrodes holding a polymer electrolyte membrane between them and a pair of separators holding the electrodes between them, said separator having passages molded thereon through which gas is supplied and discharged, wherein all or part of the separators in the fuel cells are those which are defined in Claim 4.

7. A polymer electrolyte fuel cell as defined in Claim 6, which retains no less than 85% of its initial output after continuous operation for 200-500 hours.